#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002834 Address: 333 Burma Road **Date Inspected:** 02-Jun-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** C.M. Chen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG Deck Segments** 

### **Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Mahlon Lindenmuth, arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following:

QA Inspector, Lindenmuth, observed the work being performed in Bay 2 of the New OBG. ZPMC personnel were performing various functions related to the fabrication of the OBG Side Plates and Bottom Plates as well as the deck sections in the jig fixture. The fabrication performed includes but is not limited to the preparation of areas where temporary welds for strongbacks are located, bevel preparation and welding of the Complete Joint Penetration welds (CJP)on Side Plates and Bottom Plates, heat straightening of Side Plates and Bottom Plates.

#### South Jig Fixture:

\*Segement 3AE(SEG14)- ZPMC personnel have installed the floor beam segment FL2-2 into the fixture at Panel Point(PP) 21.

the segemnt has not been welded to the segment 3AE-D6 at the time of this review. The segment 3AE-E7 has not been installed at this time and the floor beam segments FL1 North and South have not been installed at this time.

\*Segment 4BE- ZPMC personnel are prepping the Complete Joint Penetration(CJP) FCAW root pass by grinding. The root pass is being ground prior to the SAW fill and cover passes. ZPMC personnel are also performing Magnetic Particle Testing (MT) of the FCAW root pass and have noted discontinuities. Discontinuities are being evaluated further by ZPMC QC.

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

\*Segment 3BE- Caltrans QA Lindenmuth observed that the weld face of the CJP weld joining 3BE-E7 to 3BE-D6 has been ground by ZPMC personnel. The grinding has been done in such a manner that the weld face does not transition smoothly into the adjacent weld metal at the weld face. A sharp edge remains. Caltrans QA Lindenmuth informed ABF Representative, Peter Shaw, of the isuue. Mr. Shaw informed Caltrans QA, Lindenmuth, that ABF has already issued an internal incident report on the matter and that ZPMC personnel are aware of the Incident Report.

## North Jig Fixture:

\*Segment 3BW- Caltrans QA Lindenmuth has observed that ZPMC personnel have rejected both CJP welds joining the 3BW-E7 and 3BW-C5 to the 3BW-D6. The joints have been Ultrasonically Tested (UT) and rejected on 05/31/08 by ZPMC QC.

General Note: All work observed today, unless otherwise noted, appeared to generally comply with the contract documents.

### **Summary of Conversations:**

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Lindenmuth, Mahlon	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer